Water-What's in it?

The last physical measurement we will use today is to figure out much dirt or fine sediment is mixed in the water. This measurement is called the **turbidity** measurement. When there is a lot of dirt or sediment in the water it will make the water appear cloudy and will also cause the turbidity measurement to increase. We measure the water's turbidity with a special meter called a **turbidimeter.** Fish and insects can be stressed if too much dirt is in the water.

Measure and Record Turbidity Here:

Now we will take **chemical** measurements of stream water. First, we will measure the amount of **dissolved oxygen** found in the stream. Just as we use our lungs to breathe in oxygen from the air, fish and aquatic insects use gills to breathe in dissolved oxygen from the water surrounding them. Too much or too little dissolved oxygen will also cause stress and shock to the fish and insects.

Measure and Record Dissolved Oxygen Here:

The last chemical measurement we will make today will be the hardest to understand so you will have to pay close attention. Watch and listen carefully!

We will measure the **acidic content** or **pH** of the water. All surface waters contain natural acidity, so it is not a bad thing for some acid to be in the water. A problem can occur when the amount of acid in the water is too high, too low or changing very quickly. Pollutants can change the acid content of the water making it unsafe for fish and aquatic insects.

Now we are going to measure the pH of the forest stream and some other liquids known for having high and low acid levels.